

ABSTRACT

A method for establishing error tolerance in a processing system is described. Multiple autonomous processes dynamically assign themselves unique, platform-independent identities upon their creation. Automated creation of backup processes occurs, which automatically replace existing primary processes that have disappeared. Each process maintains surveillance of other processes. If one process is lost, the other processes are independently so advised, allowing them to automatically negotiate which process should replace the lost process. Once the replacement process has been determined, it will automatically replace the lost process. In addition, the consistent flow of backup processes based on each type of service is provided. If a predetermined period of time lapses without a response from a primary process, one of the backup processes of the same service type will quickly replace the lost process. This backup process, which has now become a primary process, is replaced with a newly created backup process.